



Federal Aviation Administration

Memorandum

Date: December 3, 2014

To: John H. Belk II, AJV-1410

From: Jon T. Harris, New England Region Senior RNAV Specialist, AJV-14

Subject: Post-Implementation Review for the Boston (BOS) Runway 33L Area
Navigation (RNAV) Standard Instrument Departure (SID) Procedure

BACKGROUND

A new RNAV standard instrument departure procedure (SID) was developed for runway 33L at BOS and incorporated into the following (existing) SIDs at Boston: HYLND, LBSTA, CELTK, BRUWN, SSOXS, PATSS, BLZZR, and REVSS. The revised SIDs were published on March 07, 2013, and the runway 33L procedure became available for use on June 5, 2013.

A post-implementation 12 month review was completed on August 30, 2014. This review was a special follow on review that supplemented the Performance Based Navigation (PBN) 18-step RNAV procedure development process. The review determines aircraft track compliance by comparing historical flight track data against the published procedure. The review also provides a qualitative analysis opportunity to determine how the procedure satisfies air traffic control (ATC) operational requirements, including how aircraft using the procedure interact with arriving and departing aircraft utilizing other runways.

POST-IMPLEMENTATION REVIEW

Between June 5, 2013 and June 6, 2014, approximately 16,356 jet aircraft have departed Rwy 33L utilizing the RNAV procedure. During that time, there have been no negative comments provided by ATC regarding the Rwy33L RNAV SID. The BOS Working Group representatives to include NATCA, provided the following feedback:

The Runway 33L RNAV SID is working as designed and accomplishes the following:

- Simplifies the BOS airport operations by allowing aircraft to depart from any runway using one RNAV SID assigned by ATC;
- Enhances safety by eliminating possible pilot confusion on what SID to fly;

- Reduces radio frequency congestion and workload for ATC and pilots during runway changes by not having to assign a new SID when weather or winds change;
- Facilitates jets departing BOS to fly an advanced navigation RNAV SID from all runways; and
- Allows airlines and other operators to file standard RNAV routings from all runways

Evaluation of the aircraft flight tracks compared to the published SID profiles validates aircraft are flying the new procedure as designed. Due to ATC operational requirements, there are isolated aircraft tracks when ATC has removed an aircraft off a SID to ensure the safe and efficient flow of air traffic, (e.g., to prevent faster climbing aircraft from overtaking slower climbing aircraft.)

Additionally, work group participants representing industry were solicited for their comments regarding the new runway 33L SID. Feedback from Southwest, American Airlines and Jet Blue validated aircraft conformance for the SID by commenting that they have not received any issues with its use.

CONCLUSION

Based on the validation of flight tracks and feedback provided by Boston air traffic control and industry, the BOS Runway 33L RNAV SID is performing as designed with aircraft successfully flying within the confines of the procedure's design. Incorporating the runway 33L procedure into the existing RNAV SID infrastructure has served to enhance the air traffic operation and flow of aircraft at the Boston Logan airport.